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Witness:	C. KENNETH VOGL
Sponsoring Party:	Empire Dist. Electric Company
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MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. ##-2004-#

DIRECT TESTIMONY

OF

C. KENNETH VOGL

ON

BEHALF OF

THE EMPIRE DISTRICT ELECTRIC COMPANY

Joplin, Missouri
April 2004

DIRECT TESTIMONY OF

C. KENNETH VOGL

EMPIRE DISTRICT ELECTRIC COMPANY

CASE NO. ##-2004-#

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DIRECT TESTIMONY

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C. KENNETH VOGL

CASE NO. ##-2004-#

I. Opening

Q. Please state your name and business address.

A. My name is C. Kenneth Vogl. My business address is 101 South Hanley, Suite 900, St. Louis, Missouri 63105.

Q. By whom and in what capacity are you employed?

A. I am a Consultant with Towers Perrin. I serve as an actuary and employee benefits consultant to a number of clients in the firm's St. Louis office.

Q. Please describe Towers Perrin.

A. Towers Perrin is an international management and actuarial consulting firm with offices in 79 locations throughout the world. We serve approximately 7,000 clients worldwide in virtually every industry as well as in the government, education, and not-for-profit sectors.

Q. Please describe your education.

A. I received a Bachelor of Science degree in mathematics from University of Missouri, Columbia in 1988 and a Doctorate of Philosophy in mathematics from Washington University in 1994. I completed the examination requirements for designation as a Fellow of the Society of Actuaries and received such designation in August 2000. I completed both the examination and experience requirements for designation as an Enrolled Actuary under the Employee Retirement Income Security Act of 1974 (ERISA) and received such designation in 1998.

Q. Please describe your qualifications.

A. I have been employed with Towers Perrin as a consulting actuary since 1995; I was employed by William Mercer in St. Louis from 1994 to 1995. I have substantial technical and consulting experience relative to employee benefit plans — including the design, funding, accounting, and communication of pension and postretirement welfare programs.

II. Purpose and Summary of Testimony

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to present the rationale for changing the method currently used by The Empire District Electric Company ("Empire") to recover the cost of pension benefits it provides to its employees.

After the brief summary presented in this section, I will describe the current method of regulatory cost recognition and explain Empire's rationale for changing the method. I will then describe the proposed method in detail and illustrate why it is preferable, including a comparison of projected costs to the current method.

Q. What methodology does Empire currently use to recover the cost of providing pension benefits to its employees?

A. Per a stipulation agreement in 2002, Empire recovers a cost equal to the ERISA minimum funding requirement for its pension plan. Throughout this testimony I will refer to this as the "ERISA minimum contribution method."

Q. Why does Empire propose to change the cost recognition methodology it uses for regulatory purposes?

A. The "ERISA minimum contribution method" is unacceptable because:

1) the excessive year-to-year volatility inherent in the ERISA calculations can create test-year costs that are significantly higher or lower than actual costs incurred during the recovery period;
2) it will create inequities between generations of rate payers;
3) it is not consistent with Generally Accepted Accounting Principles ("GAAP") and, therefore, cannot be used for shareholder financial reporting purposes; and
4) it discourages funding policies that are consistent with good pension plan management.

Q. Is the "ERISA minimum contribution method" the same method used by Empire to recognize pension cost for purposes of financial reporting to shareholders?

A. No. Like other corporations, Empire recognizes pension cost in accordance with Statement of Financial Accounting Standards No. 87 ("FAS 87"). The methodology prescribed by FAS 87, while somewhat flexible, is significantly different than that used for the "ERISA minimum contribution method". I will describe Empire's pension cost recognition under FAS 87 in detail and demonstrate these differences later in my testimony.

Q. Have the methods for shareholder reporting and rate recovery always been different?

A. No, the methods were identical until 2002. Whenever possible, Empire has changed the method used for shareholder reporting purposes to be exactly the same as that used for regulatory purposes. The difference in methodology did not occur until 2002 when the PSC staff moved to the non-GAAP "ERISA minimum contribution method." The following table summarizes the basis of cost recovery, changes in the methodology initiated by PSC Staff, and the financial reporting methodology used by Empire in recent years.

Year	Cost Recognition for Regulatory Reporting	Cost Recognition for Financial Reporting	Changes in Methodology Initiated by PSC Staff
Prior to 1994	Actual contributions made by Empire	Same as regulatory reporting method	
1994	FAS 87 with provisions required by PSC Staff	Same as regulatory reporting method	10-year amortization of gains and losses
1995 – 2000	FAS 87 with provisions required by PSC Staff	Same as regulatory reporting method	5-year amortization of gains and losses
2001	FAS 87 with PSC Staff modifications	Same as regulatory reporting method	Amortization of 5-year average of gains and losses
2002	ERISA minimum contribution method	No change	Cost recovery basis changed from FAS 87 to ERISA minimum contribution

Q. Can you explain what you mean when you say the "ERISA minimum contribution method" produces excessive year-to-year volatility?

A. Yes, and I will provide a more thorough explanation later in my testimony. Essentially, under current funding rules, a low interest rate environment coupled with investment losses on plan assets can create ERISA minimum required contributions in a given year that are four-to-five times greater than the average long-term cost of a plan.

This result is clearly inappropriate for regulatory purposes. If a large increase in contributions occurs during a test-year, then rate payers will be overcharged. Similarly, if the increase occurs during a non-test-year, the company will be required to make a large cash contribution with no means of cost recovery.

Q. Finally, you state that the "ERISA minimum contribution method" creates inequities between generations of rate payers. Please explain.

A. Given the long-term nature of pension obligations, the ideal method would allocate the true cost of the plan evenly over this long-term period. However, since the "true cost" cannot be determined in advance, the next best approach is to choose a method that produces a stable cost recognition pattern (i.e., is less volatile) in various economic environments. Due to the volatility discussed in the previous question, the "ERISA minimum contribution method" does not produce this stable pattern of cost recognition. As will be illustrated later in cost projections, the "ERISA minimum contribution method" would produce costs over the next several years well below the average cost over the next ten years. Thus the current method doesn't *eliminate* plan costs, but it does *defer* them. This results in future ratepayers subsidizing current rate payers. In fact, continuing the "ERISA minimum contribution method" will exacerbate the generational inequity that was produced by the rate recovery methodology used since 1994.

Q. What do you mean by the generational inequity that was produced by the rate recovery methodology since 1994?

A. In 1994, when FAS 87 was accepted by the PSC staff as the basis for rate recovery, the PSC staff required ten-year amortization of gains and losses (PSC staff moved to a five-year amortization period in 1995).This requirement, coupled with the use of the fair value of plan assets, accelerated the recognition of the "paper gains" at that time and as a result produced "pension credits," not costs, of about $12.9 million.

As a result of the market correction during 2000, 2001, and 2002, these "paper gains" no longer exist, and the credits passed through to rate payers of the 1990's must be "paid back" by future rate payers per the stipulation agreement of 2002.

Q. How does the "ERISA minimum contribution method" discourage funding policies that are consistent with good pension plan management?

A. Since only the ERISA minimum contribution is reflected in rates, contributions in excess of the minimum required have no means of being recovered in rates. In fact, voluntary contributions in excess of the minimum required for a given year will reduce, dollar for dollar, the ERISA minimum contribution in subsequent years. Voluntary contributions are important tools used to manage a pension plan performance. Examples of the benefits of voluntary contributions are avoiding payment of excessive PBGC variable premiums and smoothing out expected funding requirements, both of which would be discouraged under current cost recognition methodology.

Q. How does Empire propose to change its method of rate recovery for the pension plan?

A. The proposed method is described fully in my testimony, but I summarize by noting that Empire's proposed method of regulatory cost recognition will be less volatile than the current method, will provide a more equitable allocation of costs between generations of rate payers, will be the same as the method proposed for shareholder reporting purposes, and will allow Empire to fund its plan consistent with good pension plan management policies.

III. <u>Methods For Recognition of Pension Cost</u>

Q. Please describe FAS 87.

A. FAS 87 is a statement issued by the Financial Accounting Standards Board ("FASB") in December 1985 and is part of the GAAP to which U.S. corporations must adhere. FAS 87 requires employers to recognize the cost of providing pensions on an accrual basis over the period during which benefits are earned, i.e., during the working years of the employees. The standard also contains the detailed rules and guidance that govern the determination of the accrual costs. FAS 87 is intended to provide comparability from one company to another and from one reporting period to another for the same company.

Q. What is the process for determining the accrual costs under FAS 87?

A. The accrual cost is determined as the total of the following items:

1) Service cost — The value of benefits assigned to the current year under the benefit formula.

2) Interest cost	Interest for the coming year on the liability earned as of the measurement date.
3) Return on assets	The expected return on the market-related value of assets for the year, and a reduction to cost. Returns different from expected during the year may be deferred and spread over future years.
4) Amortization	A. Changes in liabilities due to plan changes, assumption changes, and experience gains or losses are subject to amortization. B. Employers may elect to amortize only the portion of those gains or losses in excess of 10% of the greater of the liability or assets used in determining annual cost. (This is called the FAS 87 amortization corridor.) C. The amount to be amortized is spread over an amortization period not to exceed the average future service of active employees.

Therefore, FAS 87 cost can be described as:

1) A normal accrual reflecting the value of benefits earned during the year (i.e., service cost); plus

2) A charge or credit depending on the funded status of the plan (interest cost less return on assets); plus

3) A charge or credit to recognize a portion of asset and liability shortfalls or surplus.

Q. What flexibility exists in the detailed rules and guidance in FAS 87?

A. Although sometimes rigid, FAS 87 allows a company to adopt a specific method in order to strike a balance between year-to-year volatility in pension cost and a cost that closely reflects current market conditions. For example, the volatility in cost that would result from the immediate recognition of an asset loss may be lessened by recognizing that loss over a number of years. FAS 87, while limiting the number of years over which this loss can be spread, does allow a company to "smooth" such gains and losses. In doing so, most companies use at least two of the following three smoothing mechanisms under FAS 87 to achieve this balance between cost volatility and reflecting current market conditions:

1) Market Related Value of Assets	This is the smoothed value of assets used to determine the expected return on assets component of pension cost. FAS 87 allows investment gains/losses during the prior five years to be smoothed in order to reduce the year-to-year volatility of pension cost. If no smoothing is used, then the fair value of assets is used to determine the expected return on assets.
2) Amortization Period	This is the period of time over which asset or liability gains/losses are amortized into annual pension cost. FAS 87 allows the use of a period up to the average future service of current active plan participants. For Empire, this period is 14 years.
3) Corridor	FAS 87 also allows companies to ignore in the pension cost determination a certain portion of the plan's gains/losses. Given the uncertainties that exist in measuring the pension cost, FAS 87 requires only those gains/losses in excess of a certain amount (called "the corridor") to be amortized into pension cost in any given year.

Q. What has been Empire's approach to utilizing these smoothing mechanisms?

A. As I stated earlier, after moving to FAS 87 for pension cost rate recovery in 1994, Empire has kept its financial reporting method the same as its regulatory method.

In the 1994 stipulation agreement, <u>none</u> of the smoothing mechanisms were included as part of the regulatory method. Specifically, rate recovery, and therefore shareholder reporting, were based on:

1) Fair Value of Assets
2) 10-Year Amortization Period for Gains/Losses
3) No Corridor

This approach (referred to as the "modified FAS 87 method") resulted in accelerated recognition of "paper gains" that reduced levels of cost and also exposed Empire to excessive year-to-year volatility.

In 1995, the staff reduced the period of gain/loss amortization from ten years to five years, resulting in even quicker recognition of those "paper gains."

In 2001, the PSC staff changed the method of rate recovery for pensions to what I will call the "5-year average gain/loss method". This method was the same as the "modified FAS 87 method," except that it changed the gain/loss amount to be amortized in the cost calculation. Instead of amortizing the current unrecognized gain/loss into cost, the PSC staff required that Empire amortize the average of its unrecognized gain/loss account during the past five years. This "5-year average gain/loss method", resulted in the continued recognition of "paper gains" even though the plan suffered significant investment losses in 2000 and 2001.

Currently, Empire continues to use the "5-year average gain/loss method" for shareholder reporting purposes since, as part of the 2002 rate case, the PSC staff moved Empire's rate recovery for pensions to the "ERISA minimum contribution method." (As I stated before, this method is not GAAP and therefore cannot be used for shareholder reporting.)

Q. Please describe the "ERISA minimum contribution method" used by Empire to recognize cost for regulatory purposes.

A. ERISA (and the related IRS regulations) is the law governing the minimum required and maximum deductible contributions to qualified pension plans. Under ERISA, the minimum contribution requirement may be described (similarly to the FAS 87 cost) as:

1) A normal accrual reflecting the value of benefits earned during the year (i.e., service cost); plus

2) A charge to amortize any unfunded liability of the plan; plus

3) An additional funding charge that is required if a plan's funded status drops below certain prescribed levels; minus

4) A credit equal to the accumulated value of prior contributions in excess of the minimum required contributions; minus

5) A full funding credit which eliminates the required contribution when plan assets exceed plan liabilities.

Q. Even though the "5-year average gain/loss method" currently used for shareholder reporting and the "ERISA minimum contribution method" currently used for regulatory purposes are different, do they result in similar cost recognition?

A. No. The FAS 87 cost recognized for shareholder reporting purposes in 2003 exceeded the amount collected in rates under the regulatory method by $2.0 million.

Q. Why are these costs so different?

A. These differences are discussed in detail in the next section of my testimony. To summarize, both the methodology and the economic assumptions used to calculate the ERISA minimum contribution are very different from those used to determine FAS 87 cost.

IV. Rationale for Changing the Current Method

Q. Why does Empire propose to change the cost recognition methodology it uses for regulatory purposes?

A. As I stated in my summary, the "ERISA minimum contribution method" is unacceptable because:

1) the excessive year-to-year volatility inherent in the ERISA calculations can create test-year costs that are significantly higher or lower than actual costs incurred during the recovery period;
2) it will create inequities between generations of rate payers;
3) it is not consistent with generally accepted accounting principles ("GAAP") and, therefore, cannot be used for shareholder financial reporting purposes; and
4) it discourages funding policies that are consistent with good pension plan management.

Q. Why can't Empire use the "ERISA minimum contribution method" for purposes of financial reporting to shareholders?

A. Like other corporations, Empire must recognize pension cost in accordance with Statement of Financial Accounting Standards No. 87 ("FAS 87"), and the "ERISA minimum contribution method" does not satisfy the requirements of FAS 87.

Q. Please explain why the "ERISA minimum required contribution method" does not satisfy the requirements of FAS 87.

A. Let me summarize the major reasons:

1) **Economic Assumptions --** The economic assumptions used in the determinations are different. For example, the discount rate used to determine FAS 87 liabilities and cost must be updated annually to reflect current long-term high quality corporate bond yields available in the security markets. For the ERISA calculations, the discount rate assumption used to determine liabilities and costs reflects a longer term view (i.e., is not changed annually). The use of different assumptions

results in significantly different benefit obligations under the ERISA and FAS 87 methods. For example, the FAS 87 projected benefit obligation of $88.9 million was 16% larger than the ERISA actuarial accrued liability of $76.7 million as of 1/1/2003.

2) **Amortization Periods --** The amortization of unrecognized amounts is different under ERISA and FAS 87. The unrecognized amounts are amortized over different periods. The differences in the amortization periods are as follows:

Amount to be amortized	ERISA period	FAS 87 period
Gains and losses	5 years	average future service (corridor)
Changes in assumptions	10 years	average future service (corridor)
Plan amendments	30 years	average future service (no corridor)

3) **Additional Cost for Underfunded Plans --** The ERISA contribution calculations include what is called an "additional funding charge" when a plan's underfunding drops below a prescribed level. This charge causes the ERISA contribution requirements to be extremely large for underfunded plans and quite volatile in adverse economic conditions.

4) **Full Funding Credit for Overfunded Plans --** The ERISA contribution calculations also include what is called a "full funding credit" that reduces the required contribution on a dollar-for-dollar basis when a plan is overfunded at a certain level. No comparable credit is included in the FAS 87 cost calculations. For example, a full funding credit of $1.7 million

reduced Empire's ERISA minimum required contribution from $2.0 million to $0.3 million in 2003.

Q. Even though the "ERISA minimum contribution method" cannot be used for shareholder reporting purposes, will it produce costs similar to that recognized under FAS 87?

A. Yes and No. Over the long term, i.e., over the life of the plan, both methods will generate the same costs in total. It is over the short-term that the results are sometimes very different. For example, the 2003 ERISA minimum required contribution was approximately $0.3 million, while the FAS 87 cost was $3.8 million for 2003. In fact, $1.8 million in cost was built into Empire's current rates, so the $3.8 million cost in 2003 was under recovered by $2.0 million under the current rate agreement.

Generally, FAS 87 can spread the cost of a plan as evenly as possibly over a long period of time, whereas the "ERISA minimum contribution method" reacts abruptly to changing economic conditions by generating very high costs for underfunded plans and zero cost for only slightly overfunded plans.

Q. Can you explain what you mean when you say the "ERISA minimum contribution method" produces excessive year-to-year volatility?

A. Yes. Essentially, under current funding rules, a low interest rate environment coupled with investment losses on plan assets can create ERISA minimum required contributions that are four-to-five times greater than the average long-term cost of a plan. In fact, it's not uncommon for a plan today to have a minimum required contribution in excess of 25% of payroll when only three years ago this same plan would not have been allowed to make a deductible contribution. I will illustrate the year-to-year volatility by looking at projected costs (see Schedule 2 for additional detail) under two future economic scenarios:

1) Scenario 1 (adverse returns) assumes that the investment returns on plan assets from 2004 through 2006 equal the returns from 2000 through 2002, and that the plan assets will earn 8.5% thereafter. As you can see from the projected costs contained in Schedule 2, a very large contribution of $12.9 million would be required in 2007 as a result of the additional funding charge discussed earlier. In fact, contributions for 2007 through 2009 total about $31.5 million under this scenario. The large 2007 contribution represents about 33% of payroll for plan participants, and the contributions for 2007 through 2009 average over 25% of payroll. The cost under the "FAS 87 method with asset smoothing" is about 11% of payroll in 2007, and the average for the three years is 10.8% of payroll.
2) Scenario 2 (volatile returns) assumes that the investment return on plan assets from 2004 alternate between 0% and 17%. Note that this scenario's compound return over the forecast period will average out to the expected return of 8.5%. As you can see from the projected costs in Schedule 2, the incidence and amount of contributions is closely correlated to the return. Although four of the ten forecast years show minimum contributions of $0, contributions for three of the remaining six years are about three times the ten-year average.

This type of volatility seems clearly inappropriate for regulatory purposes. If a large increase in contributions occurs during a test-year, then rate payers will be overcharged. Similarly, if the increase occurs during a non-test-year, the company will be required to make large cash contributions with no means of cost recovery.

Q. Finally, you state that the "ERISA minimum contribution method" creates inequities between generations of rate payers. Please explain.

A. Given the long-term nature of pension obligations, the ideal method would allocate the true cost of the plan evenly over this long-term period. However, since the "true cost" cannot be determined in advance, the next best approach is to choose a method that produces a stable cost recognition pattern (i.e., is less volatile) in various economic environments. Due to the volatility discussed in the previous question, the "ERISA minimum contribution method" does not produce this stable pattern of cost recognition. I will use the investment scenarios described above to illustrate this point.

1) Scenario 1 (adverse returns) projects an average contribution of $5.3 million over the next 10 years. It also projects an ERISA minimum required contribution of $0 for 2004 and $0.5 million for 2005. Based on the average contribution ($5.3 million), roughly $10.1 million of costs that should be borne by rate payers for 2004 and 2005 will be deferred to rate payers after 2005.

2) Scenario 2 (volatile returns) projects an average contribution of $3.2 million over the next 10 years. It also projects total ERISA minimum required contributions of just $0.5 million for 2004 through 2006. Based on the average contribution ($3.2 million), roughly $9.1 million of costs that should be borne by rate payers for 2004 through 2006 will be deferred to rate payers after 2006.

Even though it currently generates a lower level of cost, the "ERISA minimum contribution method" does not eliminate or reduce costs. It simply defers the recognition of those costs to a future period, resulting in larger future costs and the generational inequity discussed in the above illustrations.

Q. Is there any other reason to change from the "ERISA minimum contribution method" for purposes of rate recovery?

A. Yes, the inflexibility of the "ERISA minimum contribution method" makes it extremely difficult to manage the pension plan properly. For example, many organizations often make voluntary contributions in excess of the ERISA minimum requirements in order to reduce the premiums that must be paid to the Pension Benefit Guaranty Corporation. However, such larger contributions would not be recognized costs under the current regulatory method for Empire. In fact, making a larger contribution now would actually reduce future ERISA minimum contribution requirements on a dollar-for-dollar basis and may never be recoverable under the current method.

As another example, many organizations also make voluntary contributions in excess of the ERISA minimum requirement in order to avoid the extreme volatility illustrated previously. This is done by keeping the plan funded sufficiently to avoid the "additional funding charge" that makes the ERISA contribution requirement so volatile. While this is often a good business practice, additional contributions would not be recognized costs under the "ERISA minimum contribution method".

In essence, the "ERISA minimum contribution method" discourages voluntary contributions that are consistent with good business and pension plan management practices.

V. Description of the Proposed Method

Q. Please describe the cost recognition method that Empire proposes to use for regulatory purposes.

A. As mentioned earlier, we will refer to Empire's proposed method as the "FAS 87 method with asset smoothing". Empire intends to use this method for both regulatory and FAS 87 financial reporting purposes. The proposed method will include the following smoothing mechanisms, all of which are changes from the methodology currently used by Empire for financial reporting purposes.

1) Under the proposed method, a market-related value of assets will be used to determine annual cost instead of fair value. This market-related value will be determined by smoothing the investment gains/losses over a five-year period. (The initial value will be the fair value, but future gains/losses will be smoothed.) For example, the 2008 market-related value would be determined as follows:

   Fair Value + [20% of the 2007 investment loss (gain) + 40% of the 2006 investment loss (gain) + 60% of the 2005 investment loss (gain) +80% of the 2004 investment loss (gain)].

2) Empire will determine the gain/loss amortization for the year with reference to the current unrecognized gain/loss account (i.e., the five-year averaging of gains/losses will be eliminated). The FAS 87 corridor will be used, so the portion of the gain/loss account that will be subject to amortization will be the excess of (A) over (B), where:

   A. is the total unrecognized gain/loss (excluding investment gains/losses not yet reflected in the market-related asset value); and

   B. is 10% of the larger of the plan's projected benefit obligation ("PBO") or the market-related value of plan assets.

3) The gain/loss amount will be amortized over a period of years equal to the average expected future service of current active participants, instead of over the current five-year amortization period.

VI. Preferability of the Proposed Method

Q. You've discussed some reasons why the "ERISA minimum contribution method" should be changed for rate recovery purposes. Can you demonstrate why Empire's proposed method is preferable?

A. Yes. The attached Schedule 2 shows projected pension cost for ten years under both the "ERISA minimum contribution method" and the "FAS 87 method with asset smoothing". As you can see, the cost recognition pattern is much more volatile under the "ERISA minimum contribution method". The following table compares the average cost and the average volatility under the two methods. The table presents key statistics from ten-year forecasts of costs (fiscal 2004–2013) under both the "FAS 87 method with asset smoothing" and the "ERISA minimum contribution method" under three different investment return scenarios. I've added a "stable return" scenario to those shown earlier in my testimony:

1) Scenario 1 (adverse returns) – Investment returns for 2004, 2005 and 2006 equal to those experienced in 2000, 2001 and 2002, followed by returns equal to the 8.5% "expected" returns.
2) Scenario 2 (volatile returns) – Returns alternating between 0% and 17%.
3) Scenario 3 (stable returns) – Annual returns equal to 8.5%.

Comparison of Average Cost and Volatility over Ten-Year Forecast

(millions)

	Average Cost	Average Volatility*
Adverse returns		
– Proposed	$ 4.28	$ 0.27
– ERISA min.	$ 5.34	$ 2.61
Volatile returns		
– Proposed	$ 3.45	$ 0.19
– ERISA min.	$ 3.19	$ 5.20
Stable returns		
– Proposed	$ 3.05	$ 0.10
– ERISA min.	$ 1.77	$ 0.37

*Average Volatility is the average of the absolute value of the change in cost from year-to-year

As shown in the above table and in Schedule 2, the "ERISA minimum contribution method" is much more volatile than the "FAS 87 method with asset smoothing".

1) In an adverse return environment, the "ERISA minimum contribution method" is almost 10 times as volatile as the "FAS 87 method with asset smoothing".

2) If returns are volatile, the "ERISA minimum contribution method" is more than 27 times as volatile as the "FAS 87 method with asset smoothing".

3) If returns are stable, the "ERISA minimum contribution method" is 3.7 times as volatile as the "FAS 87 method with asset smoothing".

Ultimately, because the total cost over the life of a plan represents the benefits paid, the cost recognized will be the same under either method. As shown, the "FAS 87 method with asset smoothing" provides much lower volatility.

Q. Why is the average cost of the plan under the stable return scenario larger under the proposed method than under the current method?

A. The difference in the average cost is primarily the result of:

1) The credits generated by the current method since 1994 must be "repaid" in future years under the FAS 87 method. Since "negative contributions" were not made from 1994 to 2001, there is no similar "repayment" under the "ERISA minimum contribution method".

2) Currently, the assumptions used for FAS 87 are more conservative than the ERISA assumptions. For example, the FAS 87 discount rate for 2004 is 6.25%, while the ERISA interest rate is 8.00%. The more conservative assumptions result in greater projected costs.

Q. Why is Empire proposing to use a market-related value of assets instead of the fair value of assets?

A. I consider this to be an important part of the proposed method that enables Empire to better manage its business. As noted earlier, one of the components of the annual pension cost is a credit equal to the "expected return on assets." This expected return on assets is based on the long-term average rate of return expected to be earned by the plan assets, taking into account historical returns, future expectations, and the plan's investment strategy. However, actual investment returns are expected to deviate from this average rate of return. In fact, the plan has experienced investment losses of approximately $11 million in 2001 and $17 million in 2002, and an investment gain of $11 million in 2003.

Investment returns greater than expected are the primary sources of gains, and returns less than expected are the primary sources of losses. Schedule 4 shows the expected range of one-year and five-year compound period returns for Empire's asset mix under Towers Perrin's capital market assumptions for 2004.

As shown in the table on Schedule 4, there is a 50% chance (hardly abnormal) that annual returns will be either greater than 16.0% (75th percentile) or less than –0.7% (25th percentile). Since Empire's assumed rate of return is 8.5%, actual returns greater than 8.5% create gains while actual returns less than 8.5% create losses. This means that, on pension assets of $90 million, there is a 25% chance of getting an annual investment gain greater than $6.8 million and a 25% chance of an investment loss greater than $8.3 million.

Please note that Empire's pension plan has experienced returns over the past ten years consistent with the ranges illustrated above. The following table documents the actual return on assets for this period.

Fiscal Year	**Actual Return**
1994	1.6%
1995	29.3%
1996	11.7%
1997	21.8%
1998	22.7%
1999	16.1%
2000	(0.7%)
2001	(1.0%)
2002	(9.2%)
2003	24.2.%

The ten-year compound return is 10.9%, compared to the assumed rate of return on plan assets of 8.5%. Note that this includes the period from 1995 through 1999, in which a typical asset mix (60% stock, 40% bonds) realized the second highest five-year return in 50 years. Also note that over the past ten years 50% of the actual returns have fallen within -1% to 16% and the other 50% have fallen outside that range.

This volatility in the investment returns, if not "smoothed" by the use of a market-related value of assets, result in increased cost volatility. The use of a market-related value of assets, on the other hand, controls the year-to-year volatility in cost by smoothing out these fluctuations in the annual returns and the resulting asset value. However, this smoothing does not materially affect the long-term recognition of cost.

Q. How does this smoothing work, and how does it control year-to-year volatility in the pension cost?

A. It may help to look at a real example. Remember that the plan experienced a $17 million asset loss in 2002. If this loss is not smoothed, the return on asset component of cost would increase by about $1.4 million (i.e., 8.5% times the full $17 million), whereas the increase would only be about $0.3 million under the proposed method with 5-year smoothing (i.e., 8.5% times one-fifth of the $17 million). In other words, *considering only the return on asset component of cost*, a method with no asset smoothing is five times as volatile for this one year as the FAS 87 method with 5-year asset smoothing.

Please also note that gains/losses included in the asset value are part of the unrecognized net gain/loss that is subject to amortization. This amortization of the gain/loss is another component of pension cost. From the table below (and illustrated in Schedule 3), based on <u>total cost</u>, a method that does not smooth the investment gains/losses is:

1) almost three times as volatile as Empire's proposed method in the "adverse return" scenario, and

2) six times more volatile than Empire's proposed method in a "volatile return" scenario.

This volatility may truly cause a "surprise" because it can be caused by events late in the year such as significant changes in the market's performance during the fourth quarter. This prevents an organization from building reliable budgets for the next year.

Comparison of Average Cost and Volatility over Ten-Year Forecast

(millions)

	Average Cost	**Average Volatility***
Adverse returns		
– Smoothing	$ 4.28	$ 0.27
– No smoothing	$ 4.90	$ 0.76
Volatile returns		
– Smoothing	$ 3.45	$ 0.19
– No smoothing	$ 3.61	$1.14

*Average Volatility is the average of the absolute value of the change in cost from year-to-year

Ultimately, because the total cost over the life of a plan represents the benefits paid, the cost recognized will be the same under either method. As shown, the "FAS 87 method with asset smoothing" provides much lower volatility.

To summarize, using a market-related value of assets spreads the impact of asset gains and losses – over five years in Empire's case – which has the following advantages:

1) It minimizes the change in cost from the prior year, which improves an organization's ability to budget for next year.
2) It allows for the stable recognition of the cost of the plan over the long term – for both regulatory and financial reporting purposes.
3) It reflects the impact of the asset gain/loss over five years, which allows an organization to plan and prepare for potential changing cost levels.

Q. Why do you say that the market-related value of assets does not impact the long-term recognition of cost?

A. This is very important to remember. Over the life of a pension plan, the amounts recognized in cost will exactly equal the benefits paid to participants. The use of a market-related value of assets does not impact the long-term cost of the plan. Differences in methodology only impact the *pattern and timing* of the cost, not the total cost.

Q. Please explain why the amortization period for gains and losses is being increased from five years to the average future service of active participants.

A. Just as investment gains/losses are expected to occur, so are gains/losses arising from differences between the actual plan demographic experience (e.g., mortality, disability, termination) and the experience anticipated by the actuarial assumptions. Additionally, changes in the plan's Projected Benefit Obligation (PBO) due to changes in the discount rate are considered gains/losses under FAS 87. (Remember that the discount rate changes due to changes in bond yield rates.)

The wide variance in normal investment returns cited earlier, combined with gains/losses due to demographic experience and fluctuation in the discount rate, has a high potential of generating large changes in the gain/loss account. Amortizing the gains/losses resulting from unexpected investment and demographic experience over five years creates excessive volatility in the amortization amount from year-to-year and, therefore, excessive volatility in total cost. Amortizing gains/losses over the longer period of time will dampen the cost volatility.

VII. <u>Recognition of Other Postemployment Benefit Costs</u>

Q. Does Empire offer benefits other than the pension benefits you have discussed in this testimony:

A. Yes. Employees retiring from Empire are also eligible for other post-employment benefits ("OPEB") for medical and life insurance benefits from the company.

Q. What methodology does Empire use to recover the cost of providing these benefits to its employees?

A. The cost of these OPEB is recognized in accordance with Statement of Financial Accounting Standards No. 106 ("FAS 106"). This is the counterpart to FAS 87 that prescribes the accrual accounting for OPEB.

Q. Is this the same method used by Empire to recognize OPEB cost for purposes of financial reporting to shareholders?

A. Yes it is.

Q. Is Empire proposing to change the method for regulatory purposes?

A. Yes. Empire is proposing to make the same changes that it is making to its FAS 87 methodology (i.e., the use of a smoothed value of assets, eliminating the five-year averaging of gains and losses, and amortizing gains and losses outside the 10% corridor over the average future service of Empire employees instead of five years).

Q. So then Empire's methodology will be consistent for pension benefits and OPEB, for both regulatory and financial reporting purposes?

A. Yes it will.

VIII. <u>Summary and Closing</u>

Q. Please summarize your testimony.

A. Per a stipulation agreement in 2002, Empire recovers a cost equal to the ERISA minimum funding requirement for its pension plan. This "ERISA minimum contribution method" is unacceptable because:

1) the excessive year-to-year volatility inherent in the ERISA calculations can create test-year costs that are significantly higher or lower than actual costs incurred during the recovery period;
2) it will create inequities between generations of rate payers;
3) it is not consistent with Generally Accepted Accounting Principles ("GAAP") and, therefore, cannot be used for shareholder financial reporting purposes; and
4) it discourages good pension plan management policy.

Under current funding rules, a low interest rate environment coupled with investment losses on plan assets can create ERISA minimum required contributions in a given year that are four-to-five times greater than the average long-term cost of a plan. This result is clearly inappropriate for regulatory purposes. Empire's proposed method of regulatory cost recognition will be less volatile than the current method, will provide a more equitable allocation of costs between generations of rate payers, will be the same as the method proposed for shareholder reporting purposes, and will allow Empire to make pension plan contributions consistent with good practice.

Q. Does this conclude your testimony?

A. Yes it does.

Direct Testimony of C. KENNETH VOGL
EMPIRE DISTRICT ELECTRIC COMPANY
Case No. ##-2004-#
Schedule 1 – FAS 87 Funded Status of the Empire Pension Plan as of January 1, 2003 and December 31, 2003

Funded Status	01/01/2003	12/31/2003
Projected Benefit Obligation	$(88.9)	$(98.0)
Fair Value of Assets (FV)	78.2	90.3
Unrecognized Transition Obligation	0.0	0.0
Unrecognized Prior Service Cost	3.7	3.2
Unrecognized Loss/(Gain)	26.6	20.3
(Accrued)/Prepaid Cost	19.6	15.8
Assumptions		
Discount Rate	6.75%	6.25%
Expected Return on Assets	8.50%	8.50%
Salary Increase	4.25%	4.25%
Actual Investment Return	-9.2%	24.2%

Direct Testimony of C. KENNETH VOGL
EMPIRE DISTRICT ELECTRIC COMPANY
Case No. ##-2004-#
Schedule 2 – Illustration of Cost Volatility Under the "ERISA Minimum Contribution Method"

A. FAS 87 cost vs. ERISA minimum contribution requirement						
	adverse returns		volatile returns		stable returns	
	FAS 87	ERISA	FAS 87	ERISA	FAS 87	ERISA
2004	2.8	0.0	2.8	0.0	2.8	0.0
2005	3.0	0.5	3.0	0.5	2.8	0.0
2006	3.7	9.2	3.2	0.0	2.9	0.0
2007	4.3	12.9	3.5	2.5	3.0	0.3
2008	4.4	10.2	3.7	2.2	3.2	2.5
2009	4.6	8.4	3.8	9.2	3.2	2.7
2010	4.8	2.8	3.5	0.0	3.0	2.8
2011	5.1	3.0	3.7	9.3	3.1	3.0
2012	5.1	3.1	3.6	0.0	3.2	3.1
2013	5.0	3.3	3.7	8.2	3.3	3.3
average	4.28	5.34	3.45	3.19	3.05	1.77
B. Absolute value of change in cost from prior year.						
2005	0.2	0.5	0.2	0.5	0.0	0.0
2006	0.7	8.7	0.2	0.5	0.1	0.0
2007	0.6	3.7	0.3	2.5	0.1	0.3
2008	0.1	2.7	0.2	0.3	0.2	2.2
2009	0.2	1.8	0.1	7.0	0.0	0.2
2010	0.2	5.6	0.3	9.2	0.2	0.1
2011	0.3	0.2	0.2	9.3	0.1	0.2
2012	0.0	0.1	0.1	9.3	0.1	0.1
2013	0.1	0.2	0.1	8.2	0.1	0.2
avg chng	0.27	2.61	0.19	5.20	0.10	0.37
ratio of avg change		9.67		27.37		3.70

*Note that forecasts of costs are based on liabilities provided by Watson Wyatt, as summarized on Schedule 1.

Direct Testimony of C. KENNETH VOGL
EMPIRE DISTRICT ELECTRIC COMPANY
Case No. ##-2004-#
Schedule 3 – Illustration of the Volatility of Total FAS 87 Cost and the "Expected Return on Assets" Component of FAS 87 Cost Without Asset Smoothing

2004	2.8	2.8	2.8	2.8
2005	3.0	4.0	3.0	4.0
2006	3.7	5.4	3.2	3.0
2007	4.3	7.1	3.5	4.2
2008	4.4	6.0	3.7	3.3
2009	4.6	5.2	3.8	4.3
2010	4.8	4.7	3.5	3.0
2011	5.1	4.6	3.7	4.2
2012	5.1	4.6	3.6	3.0
2013	5.0	4.6	3.7	4.3
average	4.28	4.90	3.45	3.61

B. Absolute value of change in cost from prior year.

2005	0.2	1.2	0.2	1.2
2006	0.7	1.4	0.2	1.0
2007	0.6	1.7	0.3	1.2
2008	0.1	1.1	0.2	0.9
2009	0.2	0.8	0.1	1.0
2010	0.2	0.5	0.3	1.3
2011	0.3	0.1	0.2	1.2
2012	0.0	0.0	0.1	1.2
2013	0.1	0.0	0.1	1.3
avg chng	0.27	0.76	0.19	1.14
ratio of avg change		2.81		6.00

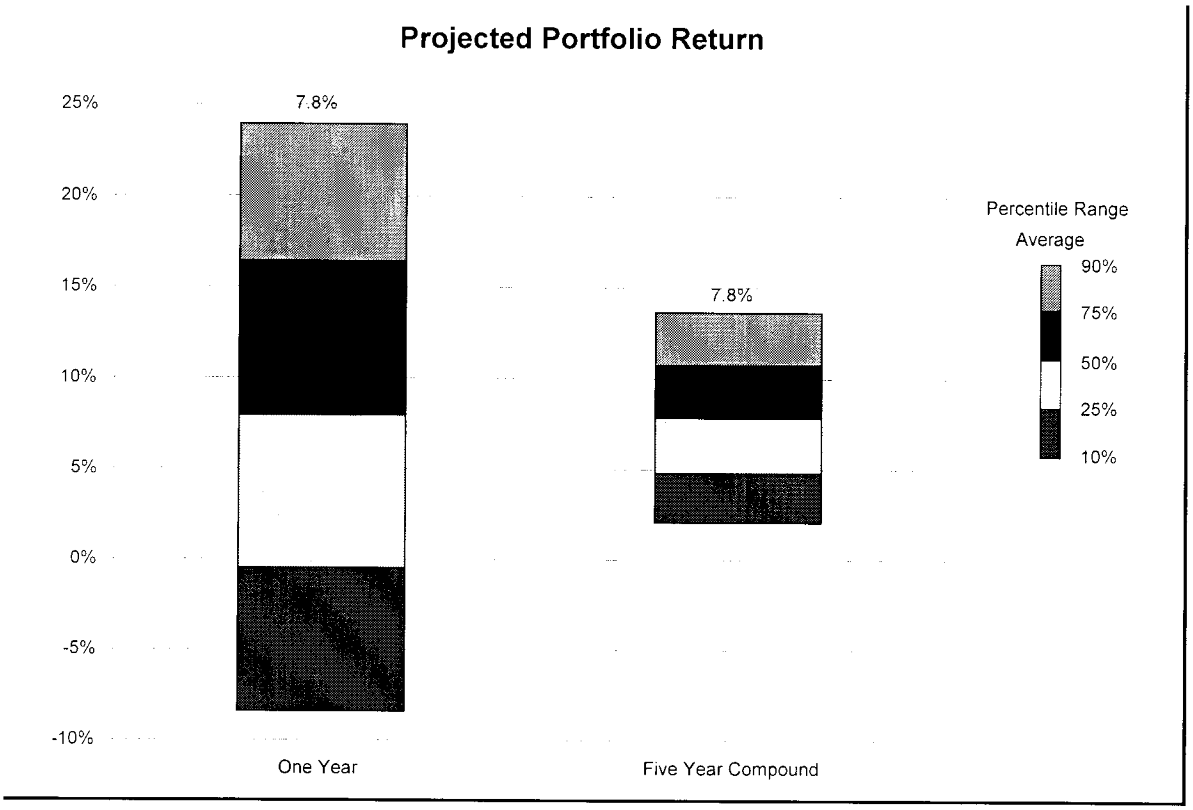
2004	7.4	7.4	7.4	7.4
2005	7.5	7.0	7.5	7.0
2006	7.3	6.3	7.6	7.7
2007	7.3	5.7	7.5	7.1
2008	8.1	7.0	7.7	7.9
2009	8.5	7.9	7.9	7.6
2010	8.7	8.4	8.3	8.5
2011	8.8	8.8	8.6	8.2
2012	9.0	9.0	8.9	9.1
2013	9.2	9.2	9.2	8.9
average	8.18	7.67	8.06	7.94

D. Absolute value of change in cost from prior year.

2005	0.1	0.4	0.1	0.4
2006	0.2	0.7	0.1	0.7
2007	0.0	0.6	0.1	0.6
2008	0.8	1.3	0.2	0.8
2009	0.4	0.9	0.2	0.3
2010	0.2	0.5	0.4	0.9
2011	0.1	0.4	0.3	0.3
2012	0.2	0.2	0.3	0.9
2013	0.2	0.2	0.3	0.2
avg chng	0.24	0.58	0.22	0.57
ratio of avg change		2.42		2.59

*Note that forecasts of costs are based on liabilities provided by Watson Wyatt, as summarized on Schedule 1.

Direct Testimony of C. KENNETH VOGL
EMPIRE DISTRICT ELECTRIC COMPANY
Case No. ##-2004-#
Schedule 4 – Illustration of Range of Returns Expected Under Empire Retirement Plan



Percentile	One-Year Return	Five-Year Return
10	-7.9%	2.1%
25	-0.7%	4.8%
50	7.3%	7.8%
75	16.0%	10.7%
90	24.0%	13.6%
Average	7.8%	7.8%

This chart illustrates that annual returns significantly different than the assumed long rate of return are common and supports the need for smoothing the market value of assets.

Note: Empire's long-term assumption for return on plan assets (8.5%) is greater than the expected compound return over the next five years.